

REMARKS

Claims 1-40 were pending in this application when the present Office Action was mailed (February 26, 2004). Claims 1-15, 17, 20, 22-26, 34, 35, and 40 have been cancelled without prejudice to pursuing these claims in a continuation or other application, and without commenting on or conceding the merits of the outstanding rejections of these claims. Claims 16 and 27 have been amended, as discussed in greater detail below. Accordingly, claims 16, 18, 19, 21, 27, 28-33, and 36-39 are currently pending.

In the final Office Action mailed February 26, 2004, all the pending claims were rejected. More specifically, the status of the application in light of this Office Action is as follows:

- (A) Claims 1-12, 14-16, 20-31, 34-36, and 38-40 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,146,971 to Walker et al. ("Walker");
- (B) Claim 33 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Walker in view of U.S. Patent No. 6,213,428 to Chaumel et al. ("Chaumel");
- (C) Claims 13 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Walker in view of U.S. Patent No. 4,741,497 to Fox ("Fox"); and
- (D) Claims 17-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Walker in view of U.S. Patent No. 5,529,263 to Rudolph ("Rudolph").

The undersigned attorney wishes to thank the Examiner for engaging in a telephone interview on March 24, 2004 to discuss the present Office Action. During the telephone interview, the applied references and the pending claims were discussed. Amendments to the claims were also discussed, and these amendments have been made in the present paper. The following remarks summarize and expand upon the points discussed during the March 24, 2004 telephone interview.

A. Response to the Section 102 Rejections

Claims 1-12, 14, 15, 20, 22-26, 34, 35, and 40 have been cancelled. Accordingly, the Section 102 rejections of these claims are now moot.

Claim 16, as amended, is directed to an aircraft that includes an aft-swept wing having a first portion on a first side of an aircraft centerline and a second portion on a second side of the centerline. A fuselage portion is coupled to the wing, with the fuselage portion being configured for sustained cruise flight at subsonic Mach numbers of at least 0.85. The fuselage portion includes a cab portion, which in turn includes an external flow surface having a generally rounded nose portion with a forward extremity and a window aperture positioned only above and aft of the forward extremity. The cab portion further includes a windshield disposed in the windshield aperture. A contour of the external flow surface and the windshield extending from a position on the external surface beneath the windshield, aft over the windshield to a position on the external surface aft of and above the windshield, has a generally continuously smooth, unkinked shape. The aircraft further includes landing gear depending from at least one of the wing and the fuselage portion, and a propulsion system. The propulsion system has a plurality of turbofan engines providing the sole propulsive force for sustained cruise flight at subsonic Mach numbers of at least 0.85.

Claim 16 was rejected under Section 102(b) as being anticipated by Walker. Walker discloses a hypersonic aircraft having a tapering nose portion 10 behind which is positioned a crew compartment 42. Although it is not identified with a reference number or described in the specification, the crew compartment 42 appears to include a curved, tapering window.

Walker fails to disclose or suggest, *inter alia*, a fuselage portion "configured for sustained flight at subsonic Mach numbers of at least 0.85," and a propulsion system "having a plurality of turbofan engines providing the sole propulsive force for sustained cruise flight at subsonic Mach numbers of at least 0.85." Accordingly, the Section 102 rejection of claim 16 on the basis of Walker should be withdrawn.

Although claim 16 was not rejected under 35 U.S.C. § 103 on the basis of Walker or any of the other applied references, such a rejection, were it to be made would appear unfounded. Walker specifically characterizes his aircraft as "capable of attaining speeds in excess of sonic velocity, and more particularly to an aircraft embodying two separate air-breathing reaction engine propulsion systems and designed for flight speeds in the hypersonic range." (Walker at column 1, lines 8-12). Accordingly, Walker explicitly teaches away from a fuselage portion "configured for sustained cruise flight at subsonic Mach numbers," and a propulsion system "having a plurality of turbofan engines providing the sole propulsive force for sustained cruise flight at subsonic Mach numbers."

With respect to the remaining applied references (which were not applied to claim 16), Rudolph discloses a supersonic aircraft, but fails to disclose details specific enough with respect to the aircraft windows to discern whether or not they have "a generally continuously smooth, unkinked shape," as recited in claim 1. Rudolph does disclose a supersonic aircraft having supersonic and subsonic engines. During cruise, the subsonic engines are in a nonoperating mode (Rudolph at Abstract). Accordingly, Rudolph teaches away from an arrangement that includes "a plurality of turbofan engines providing the sole propulsive force for sustained cruise flight at subsonic Mach numbers," as recited in claim 1.

Chaumel appears to be the only one of the applied references that clearly discloses a subsonic transport aircraft, but Chaumel also discloses conventional flight deck windows having a conventional kinked joint with the surrounding fuselage structure. Nowhere does Chaumel disclose or even suggest a fuselage cab portion having a windshield disposed so that a contour of the external flow surface and the windshield extending from a position on the external flow surface beneath the windshield aft over the windshield to a position aft of and above the windshield has "a generally continuously smooth, curved, unkinked shape," as recited in claim 1.

Fox discloses a family of aircraft, all of which include canards and forward-swept wings. Fox does not appear to disclose a cruise Mach number for any of the aircraft, but recites several advantages associated with the forward-swept wing of his

configuration. These advantages include having "adverse yaw while banking, as well as the tendency to roll while side-slipping . . . both greatly reduced or altogether eliminated," and making "possible the exclusion of all fuel and fuel lines from the crew and passenger areas of the fuselage envelope." (Fox at column 2, lines 50-58). Accordingly, Fox explicitly teaches away from an aircraft having the features of claim 16, which include "an aft-swept wing."

Claim 21 depends from claim 16. Accordingly, claim 21 is patentable over the applied references for the reasons discussed above and for the additional features of these dependent claims.

Claim 27 is directed to a method for manufacturing an aircraft, and has been amended to include features at least generally similar to those described above with reference to claim 16. For example, claim 27 is directed to a method for manufacturing an aircraft that includes fabricating a fuselage having an external flow surface with a generally rounded nose portion. The nose portion has a forward extremity and a windshield aperture positioned above and aft of the forward extremity of the rounded nose portion. The fuselage houses a passenger cabin and is configured for sustained cruise flight at subsonic mach numbers of at least 0.85. The method further includes positioning a windshield in the windshield aperture, with a contour of the external flow surface and the windshield extending from a position on the external flow surface beneath the windshield, aft over the windshield to a position on the external surface aft of and above the windshield having a generally continuously smooth and unkinked shape. The method still further includes coupling the fuselage to an aft wing, coupling landing gear to at least one of the wing and the fuselage, and coupling a propulsion system to at least one of the wing and the fuselage. The propulsion system includes a plurality of turbofan engines providing the sole propulsive force for sustained cruise flight at subsonic Mach numbers of at least 0.85.

The Section 102 rejection of claim 27 should be withdrawn for the reasons discussed above with reference to claim 16, and for the additional features of claim 27. Claims 29-30, 36, 38, and 39 all depend from claim 27 and are accordingly patentable

over the applied references for the reasons discussed above and for the additional features of these dependent claims.

B. Response to the Section 103 Rejection on the Basis of Chaumel

Claim 33 was rejected under 35 U.S.C. § 103(a) as being obvious in light of Chaumel. Claim 33 depends from claim 27 which, as discussed above, includes method features at least generally similar to the features described above with reference to claim 16. Accordingly, claim 33 is patentable over the applied references, including Chaumel for the reasons discussed above and for the additional features of this claim.

C. Response to the Section 103 Rejections on the Basis of Fox

Claims 13 and 37 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Walker in view of Fox. Claim 13 has been cancelled and accordingly, the Section 103 rejection of claim 13 is now moot. Claim 37 depends from claim 27 which, as discussed above, is directed to a method for manufacturing an aircraft that is not disclosed or suggested by the applied references, including Walker. Accordingly, the Section 103 rejection of claim 37 should be withdrawn.

D. Response to the Section 103 Rejections on the Basis of Walker and Rudolph

Claims 17-19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Walker in view of Rudolph. Claim 17 has been cancelled and accordingly, the Section 103 rejection of claim 17 is now moot. Claims 18 and 19 both depend from claim 16. As discussed above, the features of claim 16 are not disclosed or suggested by the applied references, including Walker and Rudolph. Accordingly, for the foregoing reasons and for the additional features of claims 18 and 19, the Section 103 rejections of these claims should be withdrawn.

E. Conclusion

In view of the foregoing, the claims pending in the application comply with the requirements of 35 U.S.C. § 112 and patentably define over the applied art. A Notice of Allowance is, therefore, respectfully requested. If the Examiner has any questions or

believes a telephone conference would expedite prosecution of this application, he is encouraged to call the undersigned attorney at (206) 359-3257.

Respectfully submitted,

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